



Brunsing Associates, Inc.

June 14, 2005

Project No. 403

Ms. Darcy Bering  
Sonoma County Department of Health Services  
Environmental Health Division  
3272 Airway Drive, Suite D  
Santa Rosa, California 95403-2067

**Groundwater Monitoring Report**

**April 2005**

**3610 Gravenstein Highway South  
Sebastopol, California**

Dear Ms. Bering:

This report presents the results of groundwater monitoring performed at Lander's Automotive, 3610 Gravenstein Highway South, Sebastopol, California (Plate 1) by Brunsing Associates, Inc. (BAI). The groundwater sampling was performed on April 27, 2005. A reduced groundwater monitoring program was approved in the Sonoma County Department of Health Services (SCDHS) letter dated October 26, 2004. The domestic wells will not be sampled again until January 2006.

**SITE HISTORY**

In December 1986, three underground storage tanks (USTs) were removed from the site by Eddie Neal Construction, Inc., of Santa Rosa, California. Two tanks were located in a common excavation; one 7,500-gallon tank had stored unleaded gasoline and one 5,000-gallon tank had stored leaded gasoline. One approximately 300-gallon tank used to store waste oil was located within 20 feet south of the fuel tanks excavation (Plate 2). Soil samples collected from the gasoline tanks excavation contained levels of total petroleum hydrocarbons (TPH) as gasoline up to 33 milligrams per kilogram (mg/kg). A soil sample collected beneath the waste oil tank excavation was analyzed for TPH as diesel but not for other waste oil constituents. TPH as diesel was not detected in that sample.

To date, there have been eleven groundwater monitoring wells constructed under the direction of Trans Tech Consultants (TTC) and BAI. Wells MW-8 and MW-11 have since been abandoned. Thirty-two borings have also been drilled and sampled, of which some were converted to monitoring wells. A map showing the locations of borings B-1 through

B-16, which were drilled by TTC, is contained in Appendix A. The locations of the monitoring and domestic wells, and borings B-17 through B-32 are shown on Plate 2. The analytical test results of the groundwater samples collected to date indicate, that there was petroleum hydrocarbon impacted groundwater in the area of the former gasoline USTs (wells MW-3 and MW-4, Plate 2), on the southern portion of the study site in the vicinity of well MW-7, and in the area of the former dispenser island and product lines (well MW-11). A summary of the groundwater monitoring well organic analytical data is presented in Table 1, and the water-level elevations are presented in Table 2.

In September 2003, approximately 612 tons of contaminated soil was excavated adjacent to and north of the former dispenser island. The soil was transported to and disposed at Forward Landfill. The results of the soil remediation were presented in BAI's report dated December 22, 2003.

On December 12, 2004, BAI drilled three soil borings (B-33, B-34, and B-35) at the locations shown on Plate 2 to further delineate the lateral extent of petroleum hydrocarbon contamination in soil and groundwater in the vicinity of well MW-7. Additionally, on February 7, 2005, BAI excavated in the vicinity of the anomaly reported by NORCAL Geophysical Consultants, Inc. Soil samples were collected from the excavation and the borings, and groundwater samples were collected from the borings. The results of this investigation were presented in BAI's "Additional Site Investigation Report," dated June 7, 2005.

## **WATER-LEVEL MEASUREMENTS**

Depths to groundwater were measured in wells MW-1 through MW-7, and MW-10 on April 27, 2005 by BAI personnel. The depths to groundwater and the calculated elevations for this sampling event are presented in Table 2. The groundwater flow direction generally ranged from west to northwest (Plate 3). Using data from wells MW-2, MW-3, and MW-7, the groundwater flow direction was towards the west and the groundwater gradient was approximately 0.024 foot per foot.

## **GROUNDWATER SAMPLING**

Monitoring wells MW-1, MW-3, MW-4, and MW-7 were sampled on April 27, 2005. The wells were sampled in accordance with the sampling protocol presented in Appendix B. The samples were analyzed by BACE Analytical and Field Services (BAFS) for TPH as gasoline, benzene, toluene, ethylbenzene, and xylenes (BTEX), petroleum oxygenates and lead scavengers.



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The groundwater sample collected from well MW-7 contained TPH as gasoline at 2.2 milligrams per liter (mg/l), ethylbenzene at 74.4 micrograms per liter ( $\mu\text{g/l}$ ), and xylenes at 49.7  $\mu\text{g/l}$ . The groundwater samples collected from wells MW-1 and MW-3 contained benzene at 0.59  $\mu\text{g/l}$  and 1.06  $\mu\text{g/l}$ , respectively. None of the analytes were reported in the groundwater samples collected from well MW-4. The groundwater analytical data for the monitoring wells are summarized in Table 1, and the sampling field forms are included in Appendix B. The domestic well analytical results are summarized in Table 3. The laboratory report, including quality assurance/quality control data, is presented in Appendix C.

## **CONCLUSIONS AND RECOMMENDATIONS**

TPH as gasoline and BTEX concentrations decreased in well MW-7 compared to the previous sampling event in January 2005. The April 2005 TPH as gasoline concentrations are consistent with previous sampling results reported for well MW-7.

The benzene concentrations reported in the MW-1 and MW-3 samples increased in the April 2005 samples. Benzene has not been reported in the MW-1 and MW-3 samples since April 2004. The benzene concentrations reported in the MW-1 and MW-2 samples in April 2005 may be due to high groundwater elevations.

## **SCHEDULE FOR NEXT MONITORING ACTIVITIES**

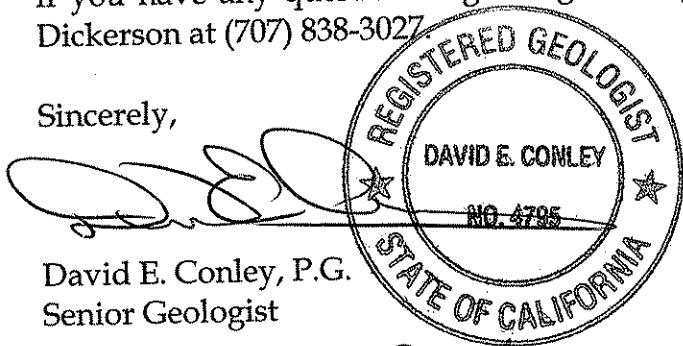
The next quarterly sampling event is tentatively scheduled for July 2005.



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If you have any questions regarding this report, please contact David Conley or Diana Dickerson at (707) 838-3027

Sincerely,



David E. Conley, P.G.  
Senior Geologist

A handwritten signature in cursive script.

Diana M. Dickerson, P.G., R.E.A.  
Principal Geologist

Attachments:

- Table 1. Groundwater Analytical Data Starting in 1993
- Table 2. Groundwater Elevation Data Starting in 1994
- Table 3. Domestic Well Analytical Data Starting in 2002

- Plate 1. Location Map
- Plate 2. Site Plan
- Plate 3. Groundwater Elevation Map, April 27, 2005

- Appendix A. TTC Site Plan and Location Map
- Appendix B. Sampling Protocol and Field Forms
- Appendix C. Analytical Laboratory Report

cc: Mr. John Lander



## TABLES



**Table 1. Groundwater Analytical Data Starting in 1993**  
**3610 Gravenstein Highway South**  
**Sebastopol, California**



Well Number	Date Sampled	TPH as Gasoline (mg/l)	TPH as Diesel (mg/l)	TPH as Motor Oil (mg/l)	Oil and Grease (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE (EPA 8020) (µg/l)	VOCs (EPA 8010) (µg/l)	MTBE * (EPA 8260) (µg/l)
MW-1	4/6/1993	ND	na	na	10	ND	ND	ND	ND	na	na	na
MW-1	12/14/1994	ND	na	na	na	ND	ND	ND	ND	na	na	na
MW-1	12/18/1996	ND	ND	ND	na	ND	ND	ND	ND	na	na	na
MW-1	4/25/2002	<0.050	na	na	na	4.06	<0.50	<0.50	<0.50	na	na	ND
MW-1	4/23/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-1	7/25/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-1	10/21/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-1	12/15/2003	<0.050	na	na	na	<0.30	<0.30	<0.50	<0.50	na	na	<0.50
MW-1	4/8/2004	<0.050	na	na	na	0.53	<0.50	<0.50	<0.50	na	na	<1.0
MW-1	7/21/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-1	10/28/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-1	1/20/2005	<0.05	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-1	4/27/2005	<0.05	na	na	na	0.59	<0.50	<0.50	<0.50	na	na	<1.0
MW-2	4/6/1993	0.35	0.92	na	ND	44	ND	ND	ND	ND	ND	na
MW-2	12/14/1994	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	na
MW-2	12/18/1996	ND	ND	ND	na	1.5	ND	ND	ND	na	na	na
MW-2	5/16/1997	ND	ND	ND	na	ND	ND	ND	ND	na	na	na
MW-2	11/3/1997	ND	ND	ND	na	ND	ND	ND	ND	na	na	na
MW-2	4/24/2002	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-2	4/23/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-2	7/25/2003	0.090	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-2	10/21/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-2	12/16/2003	<0.050	na	na	na	<0.30	<0.30	<0.50	<0.50	na	na	<0.50
MW-2	4/8/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-2	7/20/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-2	10/28/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-2	1/20/2005	<0.05	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0

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MW-3	4/6/1993	<b>0.11</b>	na	na	<b>24</b>	ND	ND	<b>2.8</b>	na	na	na	na
MW-3	12/14/1994	ND	<b>0.05</b>	ND	ND	<b>3.6</b>	ND	ND	ND	0.9 (PCE)	na	na
MW-3	12/17/1996	ND	ND	ND	na	<b>1.7</b>	ND	ND	ND	0.7 (PCE)	na	na
MW-3	5/16/1997	ND	ND	ND	na	ND	ND	ND	ND	ND	na	na
MW-3	11/3/1997	<b>0.21</b>	<b>0.28 (A)</b>	na	na	ND	ND	<b>1.7</b>	<b>2.2</b>	ND	ND	na
MW-3	11/11/1998	ND	ND	ND	na	ND	ND	ND	ND	ND	na	na
MW-3	9/2/1999	<b>0.28</b>	na	na	na	<b>1.5</b>	ND	<b>1.1</b>	ND	na	na	ND
MW-3	12/17/1999	ND	na	na	na	ND	ND	ND	ND	na	na	na
MW-3	4/24/2002	ND	na	na	na	<b>5.19</b>	<0.50	<0.50	<0.50	<0.50	na	ND
MW-3	4/23/2003	<0.050	na	na	na	<b>4.36</b>	<0.50	<0.50	<0.50	<0.50	na	ND
MW-3	7/25/2003	<b>0.16</b>	na	na	na	<b>0.540</b>	<0.50	<0.50	<0.50	<0.50	na	ND
MW-3	10/21/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	ND
MW-3	12/15/2003	<0.050	na	na	na	<b>3.9</b>	<0.30	<0.30	<0.30	<0.30	na	<0.50
MW-3	4/8/2004	<0.050	na	na	na	<b>1.79</b>	<0.50	<0.50	<0.50	<0.50	na	<1.0
MW-3	7/20/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	<1.0
MW-3	10/28/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	<1.0
MW-3	1/20/2005	<0.05	na	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	<1.0
MW-3	4/27/2005	<0.05	na	na	na	<b>1.06</b>	<0.50	<0.50	<0.50	<0.50	na	<1.0
MW-4	4/6/1993	<b>3.8</b>	na	na	na	17	<b>5.0</b>	<b>46</b>	<b>55</b>	na	na	na
MW-4	12/14/1994	<b>0.67</b>	<b>0.42 (A)</b>	ND	ND	<b>56</b>	<b>5.1</b>	<b>13</b>	<b>17</b>	na	<b>0.9 (I,I,DCA)</b>	na
MW-4	12/17/1996	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	na
MW-4	5/16/1997	ND	ND	na	na	ND	ND	ND	ND	ND	ND	na
MW-4	11/3/1997	<b>0.65</b>	<b>0.53 (A)</b>	na	na	<b>10</b>	<b>4.5</b>	<b>1.1</b>	<b>6.6</b>	ND	ND	na
MW-4	11/11/1998	ND	ND	ND	na	ND	ND	ND	ND	na	na	na
MW-4	9/2/1999	<b>0.44</b>	na	na	na	<b>1.6</b>	<b>4.9</b>	<b>1.4</b>	<b>1.6</b>	na	na	ND
MW-4	12/17/1999	<b>0.59</b>	na	na	na	<b>2.0</b>	<b>2.7</b>	<b>1.7</b>	<b>2.6</b>	na	na	ND
MW-4	4/25/2002	<0.050	na	na	na	<b>2.38</b>	<0.50	<0.50	<0.50	na	na	ND
MW-4	4/23/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-4	7/25/2003	<b>0.28</b>	na	na	na	<0.50	<0.50	<b>0.530</b>	<b>0.700</b>	na	na	ND



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MW-4	10/21/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-4	12/15/2003	<b>0.072</b>	na	na	<0.30	<0.30	<0.50	<0.50	na	na	na	<0.50 (E)
MW-4	4/8/2004	<0.050	na	na	<b>1.00</b>	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-4	7/21/2004	<b>0.15</b>	na	na	<0.50	<0.50	<b>1.54</b>	<0.50	na	na	na	<1.0
MW-4	10/28/2004	<0.05	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-4	1/20/2005	<0.05	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-4	4/27/2005	<0.05	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-5	12/14/1994	ND	na	na	ND	ND	ND	ND	ND	ND	na	na
MW-5	12/18/1996	ND	ND	ND	ND	ND	ND	ND	ND	ND	na	na
MW-5	5/16/1997	ND	ND	ND	ND	ND	ND	ND	ND	ND	na	na
MW-5	11/3/1997	ND	ND	ND	ND	ND	ND	ND	ND	ND	na	na
MW-5	4/25/2002	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-5	4/23/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-5	7/25/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-5	10/21/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<0.50
MW-5	12/16/2003	<0.050	na	na	<0.50	<0.30	<0.30	<0.50	na	na	na	<1.0
MW-5	4/8/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-5	7/20/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-5	10/28/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-5	1/20/2005	<0.05	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0
MW-6	12/14/1994	ND	na	na	ND	ND	ND	ND	ND	ND	na	na
MW-6	12/18/1996	ND	ND	ND	ND	ND	ND	ND	ND	ND	na	na
MW-6	4/24/2002	ND	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-6	4/23/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-6	7/25/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-6	10/21/2003	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	ND
MW-6	12/16/2003	<0.050	na	na	<0.30	<0.30	<0.50	<0.50	na	na	na	<0.50 (F)
MW-6	4/8/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	na	na	na	<1.0



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Well Number	Date Sampled	TPH as Gasoline (mg/l)	TPH as Diesel (mg/l)	TPH as Motor Oil (mg/l)	Oil and Grease (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE (EPA 8020) (µg/l)	VOCs (EPA 8010) (µg/l)	MTBE * (EPA 8260) (µg/l)
MW-6	7/21/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-6	10/28/2004	<0.050	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-6	1/20/2005	<0.05	na	na	<0.50	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-7	12/14/1994	<b>9.0</b>	<b>4.8 (A)</b>	ND	<b>15</b>	<b>25</b>	<b>19</b>	<b>190</b>	<b>1,300</b>	na	ND	na
MW-7	12/18/1996	<b>7.4</b>	<b>6.3 (A)</b>	ND	na	ND	<b>20</b>	<b>360</b>	<b>970</b>	na	na	na
MW-7	5/16/1997	<b>2.9</b>	<b>3.3 (A)</b>	na	na	<b>1.3</b>	<b>0.9</b>	<b>34</b>	<b>14</b>	ND	na	na
MW-7	11/3/1997	<b>5.3</b>	<b>4.6 (A)</b>	na	na	<b>13</b>	<b>8.8</b>	<b>150</b>	<b>320</b>	ND	na	na
MW-7	11/11/1998	<b>7.0</b>	ND	ND	na	<b>4.9</b>	<b>16</b>	<b>300</b>	<b>790</b>	na	na	na
MW-7	9/2/1999	<b>5.2</b>	na	na	na	<b>4.2</b>	<b>11</b>	<b>190</b>	<b>480</b>	na	na	ND
MW-7	12/17/1999	<b>7.9</b>	na	na	na	<b>8.7</b>	<b>13</b>	<b>310</b>	<b>570</b>	na	na	ND
MW-7	4/24/2002	<b>0.72</b>	na	na	na	<0.50	<0.50	<b>18.9</b>	<b>1.91</b>	na	na	ND
MW-7	4/23/2003	<b>0.13</b>	na	na	na	<0.50	<0.50	<b>6.68</b>	<b>2.98</b>	na	na	ND
MW-7	7/25/2003	<b>0.87</b>	na	na	na	<10	<b>22.3</b>	<b>50.2</b>	<b>115</b>	na	na	ND
MW-7	10/21/2003	<b>2.0</b>	na	na	na	<5.0	<5.0	<b>141</b>	<b>101</b>	na	na	ND
MW-7	12/15/2003	<b>4.4</b>	na	na	na	<15	<15	<b>120</b>	<b>97</b>	na	na	<25
MW-7	4/8/2004	<b>0.78</b>	na	na	na	<2.5	<2.5	<b>28.6</b>	<b>32.0</b>	na	na	<5.0
MW-7	7/20/2004	<b>2.3</b>	na	na	na	<b>1.55</b>	<b>4.23</b>	<b>200</b>	<b>141</b>	na	na	<1.0
MW-7	10/28/2004	<b>1.8</b>	na	na	na	<b>1.92</b>	<0.50	<b>170</b>	<b>28.8</b>	na	na	<1.0
MW-7	1/21/2005	<b>7.4</b>	na	na	na	<b>2.03</b>	<b>5.11</b>	<b>324</b>	<b>502</b>	na	na	<2.0
MW-7	4/27/2005	<b>2.2</b>	na	na	na	<2.5	<2.5	<b>74.4</b>	<b>49.7</b>	na	na	<5.0
MW-8	12/15/1994	ND	na	na	ND	ND	ND	ND	ND	na	na	na
MW-8	12/18/1996	ND	ND	ND	ND	ND	ND	ND	ND	na	na	na

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MW-9	12/14/1994	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	na
MW-9	12/18/1996	ND	ND	ND	na	ND	ND	ND	na	na	na	na
MW-9	7/24/2001	na	na	na	na	na	na	na	na	na	na	ND
MW-9	4/24/2002	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	1.24
MW-9	4/23/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-9	7/25/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-9	10/21/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-9	12/16/2003	<0.50	na	na	na	<30	<30	<50	<50	na	na	<50
MW-9	4/8/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-9	7/21/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-9	10/28/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-9	1/20/2005	<0.05	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-10	12/17/1996	ND	ND	na	ND	ND	ND	ND	ND	ND	ND	na
MW-10	5/16/1997	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
MW-10	11/3/1997	ND	ND	na	ND	ND	ND	ND	ND	ND	na	na
MW-10	12/17/1999	ND	na	na	ND	ND	ND	ND	na	na	na	ND
MW-10	4/25/2002	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-10	4/23/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-10	7/25/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	ND
MW-10	10/21/2003	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-10	12/16/2003	<0.050	na	na	na	<0.30	<0.30	<0.50	<0.50	na	na	<0.50
MW-10	4/7/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-10	7/21/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-10	10/28/2004	<0.050	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0
MW-10	1/20/2005	<0.05	na	na	na	<0.50	<0.50	<0.50	<0.50	na	na	<1.0



**Table 1. Groundwater Analytical Data Starting in 1993**  
 3610 Gravenstein Highway South  
 Sebastopol, California

Well Number	Date Sampled	TPH as Gasoline (mg/l)	TPH as Diesel (mg/l)	TPH as Motor Oil (mg/l)	Oil and Grease (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (EPA 8020) (µg/l)	VOCs (EPA 8010) (µg/l)	MTBE * (EPA 8260) (µg/l)
MW-11	11/11/1998	0.26	ND	ND	na	77	21	4.8	35	na	(B)	na
MW-11	9/2/1999	34	na	na	na	7,900	7,400	1,600	5,500	na	na	ND (C)
MW-11	12/17/1999	7.4	na	na	na	2,100	68	8.8	1,500	na	na	ND (C)
MW-11	4/24/2002	0.88	na	na	na	340	<2.5	32.5	62.6	na	na	ND (C)

1993 data collected by Trans Tech Consultants and included in their report dated May 24, 1993.

ND = Not detected at the method reporting limit.

< = Not detected above specified reporting limit.

ns = Well not sampled due to inaccessability.

na = Not analyzed.

mg/l = milligrams per liter.

µg/l = micrograms per liter.

MTBE = methyl tertiary butyl ether, PCE = tetrachloroethene, 1,1-DCA = 1,1-dichloroethane.

(A) = Chromatographic peak array does not match commercial diesel standard; probable source is weathered gasoline.

(B) = 1,2-dibromoethane at 2.26 µg/l and 1,2-dichloroethane at 9.65 µg/l reported in sample.

(C) = 1,2-dichloroethane reported at 311 µg/l for 9/2/99, 116 µg/l for 12/17/99, and 12.5 µg/l for 4/24/02.

(D) = 1,2-dichloroethane reported at 1.22 µg/l.

(E) = tert-butyl alcohol reported at 13 µg/l.

(F) = 1,4-dichlorobenzene reported at 3.2 µg/l.

\* Analyzed for petroleum oxygenates and lead scavengers by EPA Test Method 8260; only those detected are listed.

**Table 2. Groundwater Elevation Data Starting in 1994**  
 3610 Gravenstein Highway South  
 Sebastopol, California

Well Number	Date Measured	Elevation at Top of Casing (feet above MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet above MSL)	Predominant Groundwater Flow Direction
MW-1	12/14/1994	87.60	1.25	86.35	North to Northwest
MW-2	12/14/1994	88.33	2.25	86.08	
MW-3	12/14/1994	87.92	1.30	86.62	
MW-4	12/14/1994	87.70	1.29	86.41	
MW-5	12/14/1994	86.91	2.31	84.60	
MW-6	12/14/1994	86.63	0.58	86.05	
MW-7	12/14/1994	89.36	1.54	87.82	
MW-8	12/14/1994	88.74	1.02	87.72	
MW-9	12/14/1994	88.52	1.61	86.91	
MW-1	12/17/1996	87.60	0.83	86.77	Northwest
MW-2	12/17/1996	88.33	1.68	86.65	
MW-3	12/17/1996	87.92	0.78	87.14	
MW-4	12/17/1996	87.70	1.53	86.17	
MW-5	12/17/1996	86.91	2.47	84.44	
MW-6	12/18/1996	86.63	0.78	85.85	
MW-7	12/17/1996	89.36	1.03	88.33	
MW-8	12/17/1996	88.74	0.89	87.85	
MW-9	12/17/1996	88.52	2.33	86.19	
MW-10	12/17/1996	86.35	-0.03	86.38	
MW-1	5/16/1997	87.60	2.17	85.43	North to Northwest
MW-2	5/16/1997	88.33	3.37	84.96	
MW-3	5/16/1997	87.92	2.13	85.79	
MW-4	5/16/1997	87.70	2.10	85.60	
MW-5	5/16/1997	86.91	3.33	83.58	
MW-6	5/16/1997	86.63	na	na	
MW-7	5/16/1997	89.36	2.06	87.30	
MW-8	5/16/1997	88.74	1.78	86.96	
MW-9	5/16/1997	88.52	1.71	86.81	
MW-10	5/16/1997	86.35	1.39	84.96	
MW-1	11/3/1997	87.60	5.12	82.48	North
MW-2	11/3/1997	88.33	5.41	82.92	
MW-3	11/3/1997	87.92	5.12	82.80	
MW-4	11/3/1997	87.70	5.08	82.62	
MW-5	11/3/1997	86.91	5.08	81.83	
MW-6	11/3/1997	86.63	na	na	
MW-7	11/3/1997	89.36	5.49	83.87	
MW-8	11/3/1997	88.74	5.11	83.63	
MW-9	11/3/1997	88.52	4.99	83.53	
MW-10	11/3/1997	86.35	4.23	82.12	



**Table 2. Groundwater Elevation Data Starting in 1994**

3610 Gravenstein Highway South

Sebastopol, California

<b>Well Number</b>	<b>Date Measured</b>	<b>Elevation at Top of Casing (feet above MSL)</b>	<b>Depth to Groundwater (feet BTOC)</b>	<b>Groundwater Elevation (feet above MSL)</b>	<b>Predominant Groundwater Flow Direction</b>
MW-1	11/10/1998	87.60	3.47	84.13	North
MW-2	11/10/1998	88.33	3.84	84.49	
MW-3	11/10/1998	87.92	3.55	84.37	
MW-4	11/10/1998	87.70	3.53	84.17	
MW-5	11/10/1998	86.91	3.87	83.04	
MW-6	11/10/1998	86.63	2.74	na	
MW-7	11/10/1998	89.36	4.18	85.18	
MW-9	11/10/1998	88.74	4.04	84.70	
MW-10	11/10/1998	88.52	3.75	84.77	
MW-1	9/2/1999	87.60	4.61	82.99	Northwest
MW-2	9/2/1999	88.33	4.98	83.35	
MW-3	9/2/1999	87.92	4.70	83.22	
MW-4	9/2/1999	87.70	4.73	82.97	
MW-5	9/2/1999	86.91	4.97	81.94	
MW-6	9/2/1999	86.63	4.35	82.28	
MW-7	9/2/1999	89.36	4.63	84.73	
MW-9	9/2/1999	88.74	5.43	83.31	
MW-10	9/2/1999	88.52	na	na	
MW-11	9/2/1999	ns	3.75	ns	
MW-1	12/17/1999	87.60	3.27	84.33	North
MW-2	12/17/1999	88.33	3.64	84.69	
MW-3	12/17/1999	87.92	3.37	84.55	
MW-4	12/17/1999	87.70	3.36	84.34	
MW-5	12/17/1999	86.91	3.93	82.98	
MW-6	12/17/1999	86.63	2.77	83.86	
MW-7	12/17/1999	89.36	4.05	85.31	
MW-9	12/17/1999	88.74	3.97	84.77	
MW-10	12/17/1999	88.52	2.31	86.21	
MW-11	12/17/1999	ns	3.57	ns	
MW-1	4/24/2002	87.60	1.04	86.56	North to Northwest
MW-2	4/24/2002	88.33	1.51	86.82	
MW-3	4/24/2002	87.92	0.95	86.97	
MW-4	4/24/2002	87.70	1.15	86.55	
MW-5	4/24/2002	86.91	2.74	84.17	
MW-6	4/24/2002	86.63	1.26	85.37	
MW-7	4/24/2002	89.36	1.34	88.02	
MW-9	4/24/2002	88.74	2.35	86.39	
MW-10	4/24/2002	88.52	0.19	88.33	
MW-11	4/24/2002	ns	0.98	ns	



**Table 2. Groundwater Elevation Data Starting in 1994**

3610 Gravenstein Highway South

Sebastopol, California

<b>Well Number</b>	<b>Date Measured</b>	<b>Elevation at Top of Casing (feet above MSL)</b>	<b>Depth to Groundwater (feet BTOC)</b>	<b>Groundwater Elevation (feet above MSL)</b>	<b>Predominant Groundwater Flow Direction</b>
MW-1	4/23/2003	87.60	0.75	86.85	West to Northwest
MW-2	4/23/2003	88.33	0.96	87.37	
MW-3	4/23/2003	87.92	0.71	87.21	
MW-4	4/23/2003	87.70	0.86	86.84	
MW-5	4/23/2003	86.91	2.56	84.35	
MW-6	4/23/2003	86.63	0.95	85.68	
MW-7	4/23/2003	89.36	1.06	88.30	
MW-9	4/23/2003	88.74	2.23	86.51	
MW-10 <sup>A</sup>	4/23/2003	88.52	0.00	>88.52	
MW-1	7/25/2003	87.60	4.01	83.59	West to East
MW-2	7/25/2003	88.33	4.31	84.02	
MW-3	7/25/2003	87.92	4.05	83.87	
MW-4	7/25/2003	87.70	4.14	83.56	
MW-5	7/25/2003	86.91	4.59	82.32	
MW-6	7/25/2003	86.63	3.84	82.79	
MW-7	7/25/2003	89.36	3.70	85.66	
MW-9	7/25/2003	88.74	4.65	84.09	
MW-10	7/25/2003	88.52	3.49	85.03	
MW-1	10/21/2003	87.60	5.82	81.78	West to North
MW-2	10/21/2003	88.33	6.31	82.02	
MW-3	10/21/2003	87.92	6.03	81.89	
MW-4	10/21/2003	87.70	5.99	81.71	
MW-5	10/21/2003	86.91	5.88	81.03	
MW-6	10/21/2003	86.63	5.36	81.27	
MW-7	10/21/2003	89.36	5.75	83.61	
MW-9	10/21/2003	88.74	6.49	82.25	
MW-10	10/21/2003	88.52	5.16	83.36	
MW-1	12/15/2003	87.60	2.77	84.83	Northwest <sup>B</sup>
MW-2	12/16/2003	88.33	3.12	85.21	
MW-3	12/15/2003	87.92	2.92	85.00	
MW-4	12/15/2003	87.70	2.88	84.82	
MW-5	12/16/2003	86.91	3.40	83.51	
MW-6	12/16/2003	86.63	1.99	84.64	
MW-7	12/15/2003	89.36	4.70	84.66	
MW-9	12/16/2003	88.74	2.77	85.97	
MW-10	12/16/2003	88.52	1.94	86.58	



**Table 2. Groundwater Elevation Data Starting in 1994**

3610 Gravenstein Highway South  
Sebastopol, California

Well Number	Date Measured	Elevation at Top of Casing (feet above MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet above MSL)	Predominant Groundwater Flow Direction
MW-1	4/7/2004	87.60	0.87	86.73	West to Northwest
MW-2	4/7/2004	88.33	1.37	86.96	
MW-3	4/7/2004	87.92	0.84	87.08	
MW-4	4/7/2004	87.70	0.96	86.74	
MW-5	4/7/2004	86.91	2.64	84.27	
MW-6	4/7/2004	86.63	1.08	85.55	
MW-7	4/7/2004	89.36	1.35	88.01	
MW-9	4/7/2004	88.74	2.30	86.44	
MW-10	4/7/2004	88.52	0.17	88.35	
MW-1	7/20/2004	87.60	4.59	83.01	
MW-2	7/20/2004	88.33	5.07	83.26	West to Northwest
MW-3	7/20/2004	87.92	4.80	83.12	
MW-4	7/20/2004	87.70	4.78	82.92	
MW-5	7/20/2004	86.91	4.96	81.95	
MW-6	7/20/2004	86.63	4.39	82.24	
MW-7	7/20/2004	89.36	4.34	85.02	
MW-9	7/20/2004	88.74	5.31	83.43	
MW-10	7/20/2004	88.52	4.17	84.35	
MW-1	10/28/2004	87.60	5.70	81.90	West to Northwest
MW-2	10/28/2004	88.33	6.10	82.23	
MW-3	10/28/2004	87.92	5.88	82.04	
MW-4	10/28/2004	87.70	5.71	81.99	
MW-5	10/28/2004	86.91	5.66	81.25	
MW-6	10/28/2004	86.63	4.70	81.93	
MW-7	10/28/2004	89.36	6.49	82.87	
MW-9	10/28/2004	88.74	5.85	82.89	
MW-10	10/28/2004	88.52	4.77	83.75	
MW-1	1/20/2005	87.60	0.45	87.15	West to Northwest
MW-2	1/20/2005	88.33	1.59	86.74	
MW-3	1/20/2005	87.92	0.41	87.51	
MW-4	1/20/2005	87.70	0.55	87.15	
MW-5	1/20/2005	86.91	2.29	84.62	
MW-6	1/20/2005	86.63	0.69	85.94	
MW-7	1/20/2005	89.36	0.74	88.62	
MW-9	1/20/2005	88.74	2.22	86.52	
MW-10 <sup>A</sup>	1/20/2005	88.52	0.00	>88.52	



**Table 2. Groundwater Elevation Data Starting in 1994**

3610 Gravenstein Highway South  
Sebastopol, California

<b>Well Number</b>	<b>Date Measured</b>	<b>Elevation at Top of Casing (feet above MSL)</b>	<b>Depth to Groundwater (feet BTOC)</b>	<b>Groundwater Elevation (feet above MSL)</b>	<b>Predominant Groundwater Flow Direction</b>
MW-1	4/27/2005	87.60	0.46	87.14	West to Northwest
MW-2	4/27/2005	88.33	1.70	86.63	
MW-3	4/27/2005	87.92	0.47	87.45	
MW-4	4/27/2005	87.70	0.61	87.09	
MW-5	4/27/2005	86.91	2.43	84.48	
MW-6	4/27/2005	86.63	0.88	85.75	
MW-7	4/27/2005	89.36	0.82	88.54	
MW-10 <sup>A</sup>	4/27/2005	88.52	0.00	>88.52	

MSL = Referenced to Mean Sea Level

na = Well not accessible for measurement

BTOC = Below top of casing

ns = Not surveyed

Well MW-8 was abandoned on October 26, 1998 and Well MW-11 was abandoned on June 11, 2002

<sup>A</sup>=Water in MW-10 at top of casing on 4/23/03 and 1/20/05<sup>B</sup> Calculated using data from wells MW-5, MW-6, and MW-10

**Table 3. Domestic Well Analytical Data Starting in 2002**  
 3610 Gravenstien Highway South  
 Sebastopol, California

Well Number	Date Sampled	TPH as Gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE EPA Method 8260B* (µg/l)
DW-3598	4/25/2002	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3610	4/25/2002	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3617	4/25/2002	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3625	4/25/2002	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-5221	4/25/2002	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3598	7/25/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3610	7/25/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3617	7/25/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3625	7/25/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-5221	7/25/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3598	10/21/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3610	10/21/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3617	10/21/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3625	10/21/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-5221	10/21/2003	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3598	12/18/2003	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50
DW-3610	12/18/2003	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50
DW-3617	12/18/2003	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50
DW-3625	12/18/2003	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50
DW-5221	12/18/2003	<0.050	<0.30	<0.30	<0.50	<0.50	<0.50
DW-3598	4/8/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3610	4/7/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3617	4/7/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3625	4/8/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3627	4/8/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-5221	4/8/2004	<0.05	<0.5	<0.5	<0.5	<0.5	<1.0
DW-3598	7/21/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3610	7/21/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3617	7/21/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3625	7/21/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-5221	7/21/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3598	10/28/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3610	10/28/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3617	10/28/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3625	10/28/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0
DW-5221	10/28/2004	<0.050	<0.50	<0.50	<0.50	<0.50	<1.0



**Table 3. Domestic Well Analytical Data Starting in 2002**

3610 Gravenstien Highway South

Sebastopol, California

Well Number	Date Sampled	TPH as Gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE EPA Method 8260B* (µg/l)
DW-3598	1/21/2005	<0.05	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3610	1/21/2005	<0.05	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3617	1/20/2005	<0.05	<0.50	<0.50	<0.50	<0.50	<1.0
DW-3625	1/20/2005	<0.05	<0.50	<0.50	<0.50	<0.50	<1.0
DW-5221	1/21/2005	<0.05	<0.50	<0.50	<0.50	<0.50	<1.0

mg/l = milligrams per liter

µg/l = micrograms per liter

TPH = total petroleum hydrocarbons

\*analyzed for petroleum oxygenates and lead scavengers; none detected.

**Sample Locations**

DW-3598 =3598 Gravenstein Highway

DW-3610 =3610 Gravenstein Highway

DW-3617 =3617 Mt. Vernon Road

DW-3625 =3625 Gravenstein Highway

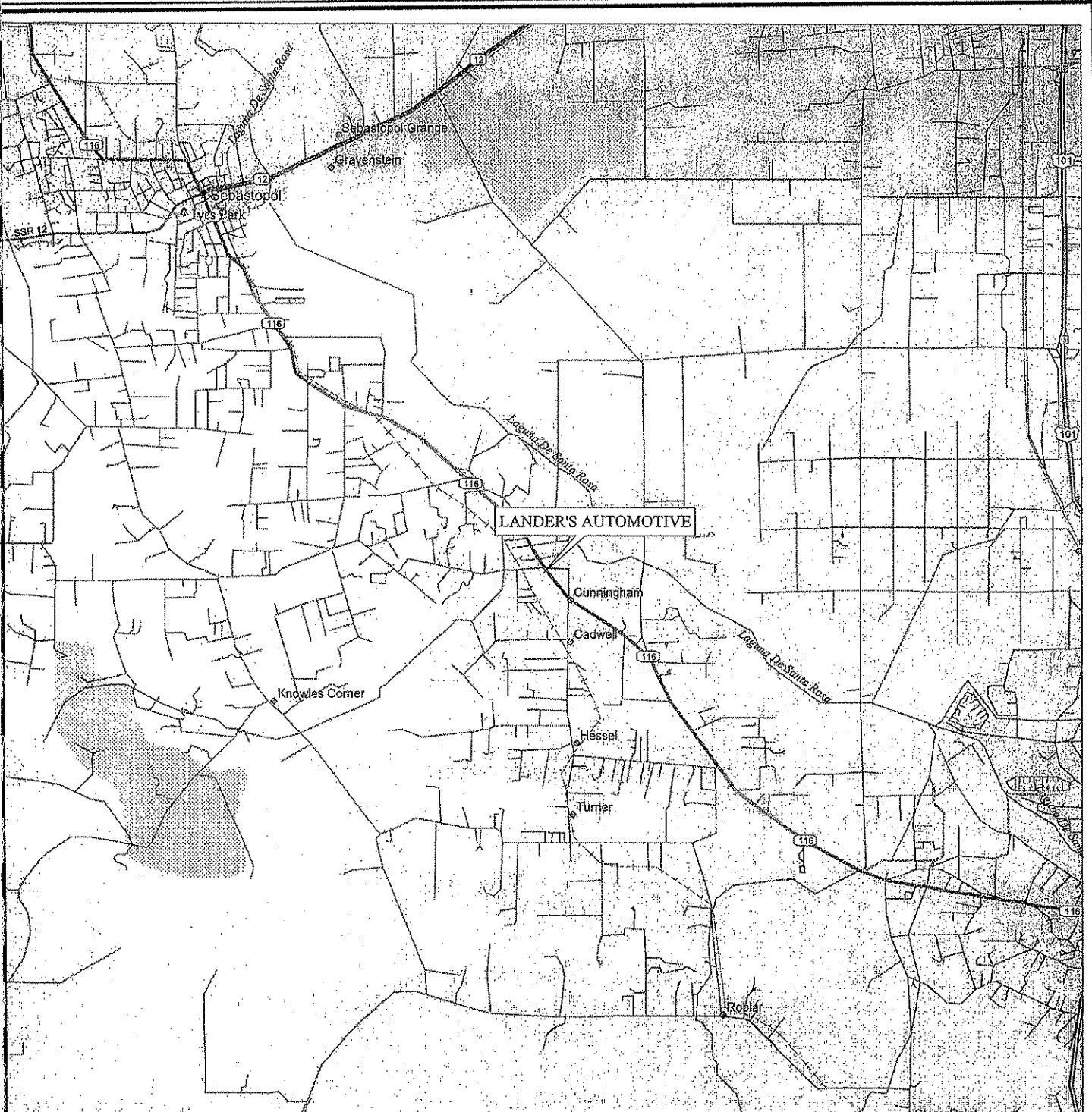
DW-3627 =3627 Gravenstein Highway

DW-5221 =5221 Lone Pine Road



## **PLATES**





© 1996 DeLorme Street Atlas USA

Mag 13.00

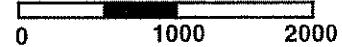
Scale 1:62,500 (at center)

Thu Jul 03 09:24 2003

1 Miles



APPROXIMATE SCALE  
(feet)



PROJECT NO.: 403

DRAWN BY: DEC 6/19/03

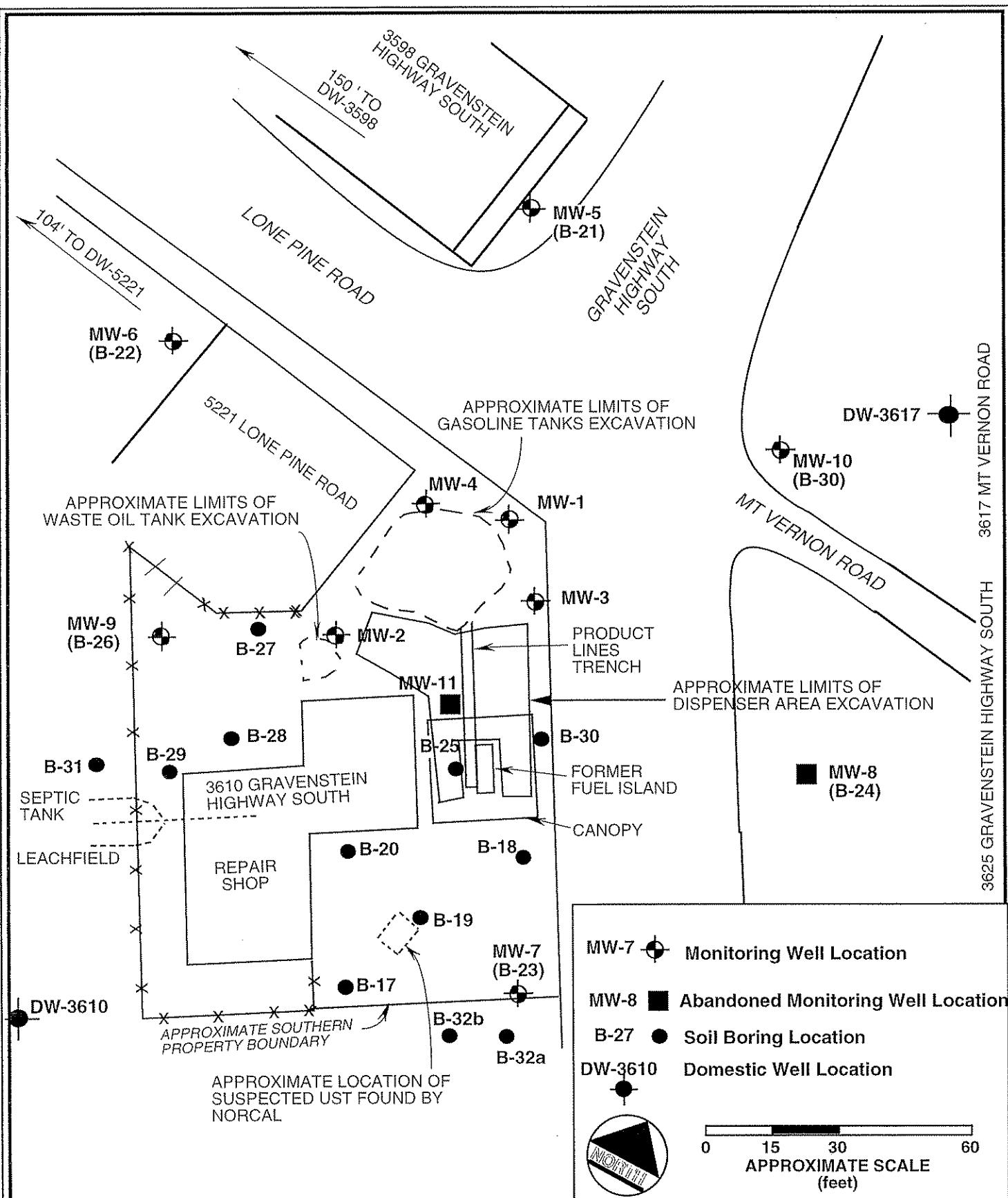
CHECKED BY:

APPROVED BY: *DMG* 7/3/03

REVISED BY:

Brunsing Associates, Inc.  
P.O. Box 588  
Windsor, California 95492

PLATE 1  
LOCATION MAP  
3610 Gravenstein Highway South  
Sebastopol, California

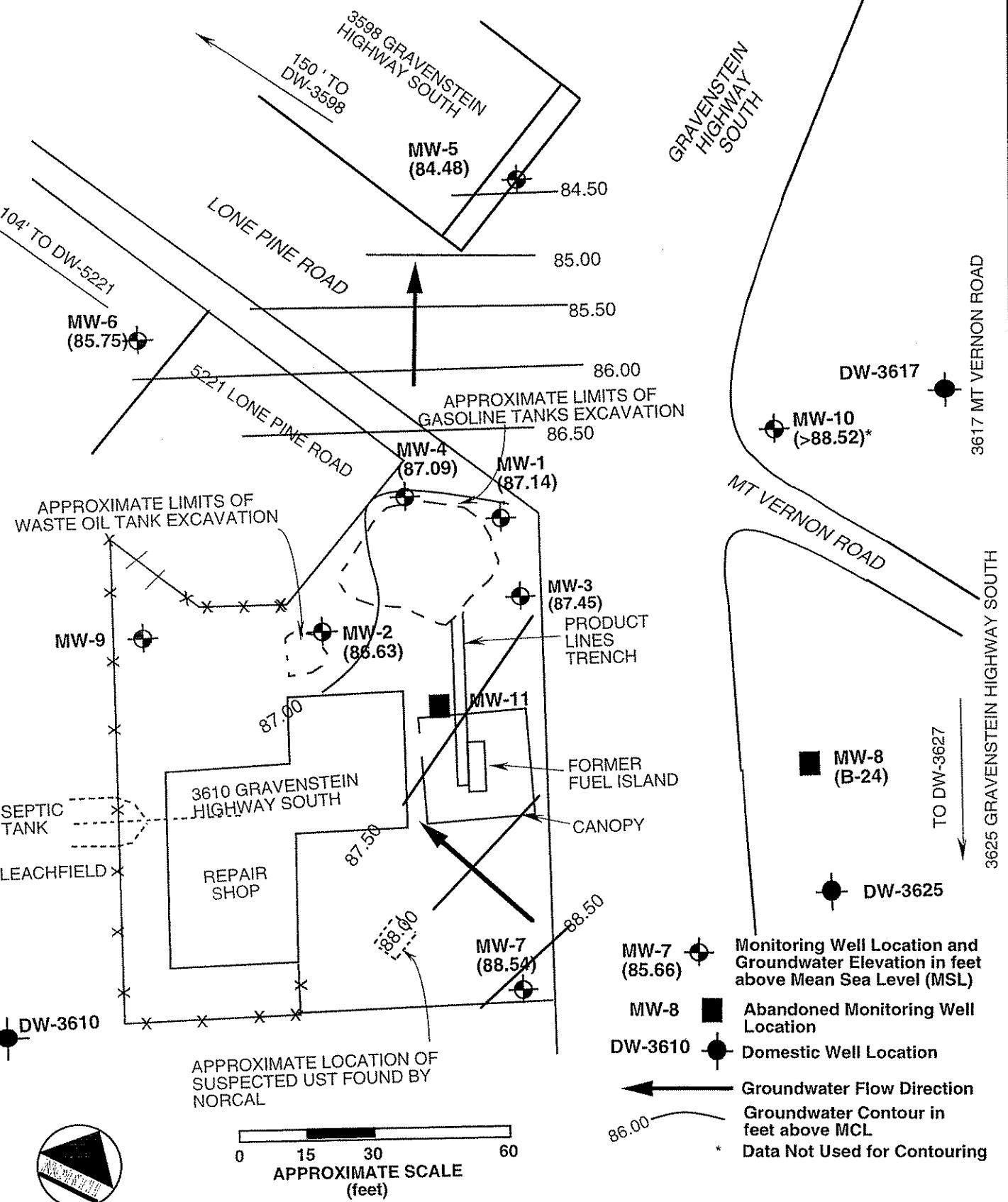


PROJECT NO.: 403.26

DRAWN BY:	DEC	9/23/02
CHECKED BY:		
APPROVED BY:	DMO	3/24/04
REVISED:		

Brunsing Associates, Inc.  
P.O. Box 588  
Windsor, California

**PLATE 2**  
**SITE MAP**  
3610 Gravenstein Highway South  
Sebastopol, California



PROJECT NO.: 403

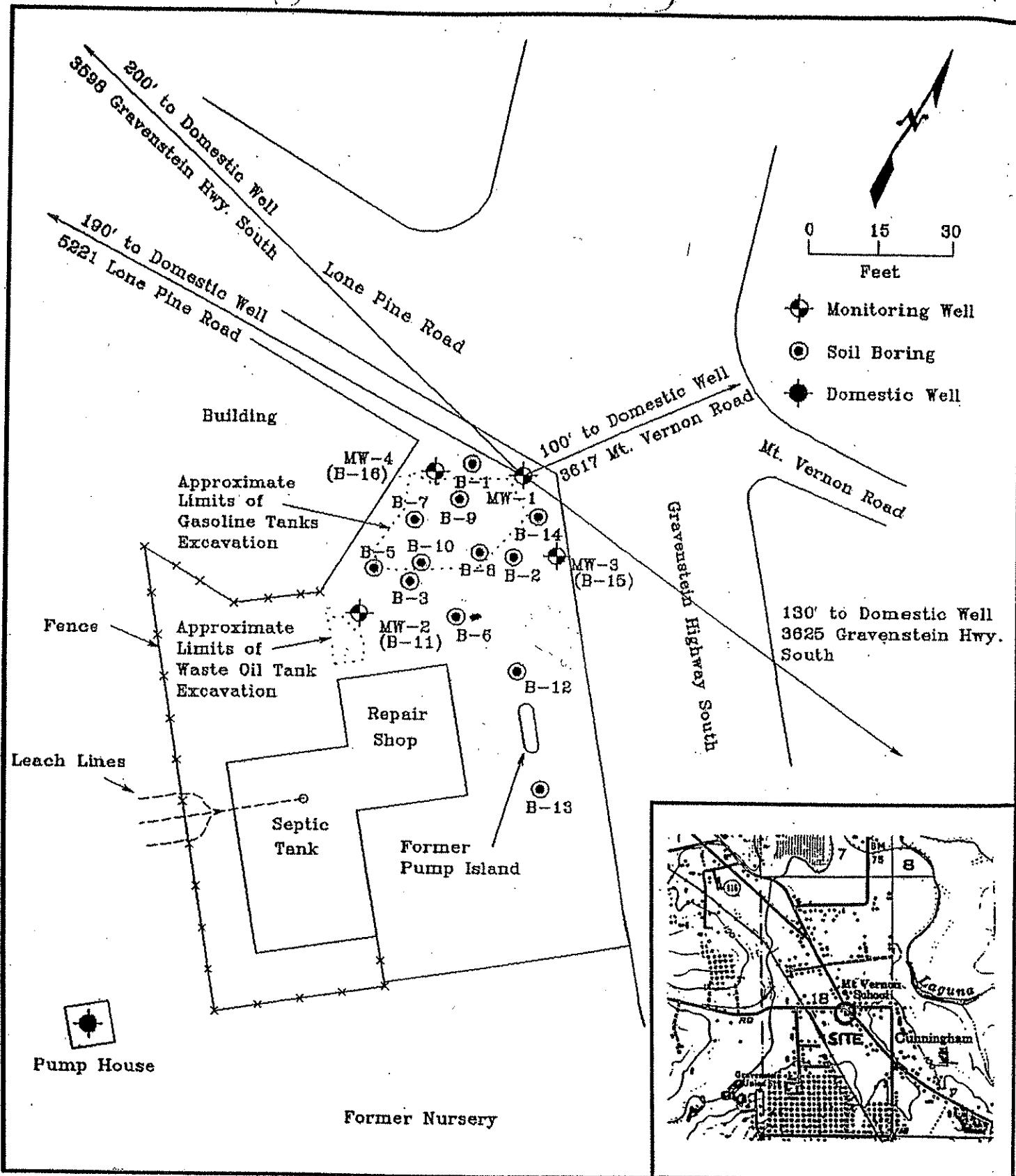
DRAWN BY:	DEC	6/6/05
CHECKED BY:		
APPROVED BY:	<i>Don</i>	<i>6/14/05</i>
REVISED:		

Brunsing Associates, Inc.  
P.O. Box 588  
Windsor, California

PLATE 3  
GROUNDWATER ELEVATION MAP  
April 27, 2005  
3610 Gravenstein Highway South  
Sebastopol, California

**APPENDIX A**  
**TTC Site Plan and Location Map**





**TRANS TECH CONSULTANTS**  
ENVIRONMENTAL AND GEOTECHNICAL SERVICES

DRAWN  
BSK

JOB NUMBER  
1206.01.02

APPROVED  
TEL

Site Plan and Location Map  
3610 Gravenstein Highway South  
Sebastopol, California

DATE  
5-21-93

0102sr.s1

**APPENDIX B**  
**Sampling Protocol and Field Forms**



## **Groundwater Sampling Protocol**

### **Monitoring Wells**

Prior to purging a monitoring well, groundwater levels are measured with a Solinst electric depth measurement device, or an interface probe, in all wells that are to be measured. At sites where petroleum hydrocarbons are possible contaminants, the well is checked for floating product using a clear bailer, a steel tape with water/oil paste, or an interface probe, during the initial sampling round. If floating product is measured during the initial sampling round or noted during subsequent sampling rounds, floating product measurements are continued.

After the water level and floating product measurements are complete, the monitoring well is purged until a minimum of three casing volumes of water are removed, water is relatively clear of sediment, and pH, conductivity, and temperature measurements of the water become relatively stable. If the well is purged dry, groundwater samples are collected after the water level in the well recovers to at least 80 percent of the original water column measured in the well prior to sampling, or following a maximum recovery period of two hours. The well is purged using a factory-sealed, disposable, polyethylene bailer, a four-inch diameter submersible Grundfos pump, a two-inch diameter ES-40 purge pump, or a peristaltic pump. The purge water is stored on-site in clean, 55-gallon drums.

A groundwater sample is collected from each monitoring well following re-equilibration of the well after purging. The groundwater sample is collected using a factory-sealed disposable, polyethylene bailer with a sampling port, or a factory-sealed Teflon bailer. A factory provided attachment designed for use with volatile organic compounds (VOCs) is attached to the polyethylene bailer sampling port when collecting samples to be analyzed for VOCs. The groundwater sample is transferred from the bailer into sample container(s) that are obtained directly from the analytical laboratory.

The sample container(s) is labeled with a self-adhesive tag. The following information is included on the tag:

- Project number
- Sample number
- Date and time sample is collected
- Initials of sample collector(s).



Individual log sheets are maintained throughout the sampling operations. The following information is recorded:

- Sample number
- Date and time well sampled and purged
- Sampling location
- Types of sampling equipment used
- Name of sampler(s)
- Volume of water purged.

Following collection of the groundwater sample, the sample is immediately stored on blue ice in an appropriate container. A chain-of-custody form is completed with the following information:

- Date the sample was collected
- Sample number and the number of containers
- Analyses required
- Remarks including preservatives added and any special conditions.

The original copy of the chain-of-custody form accompanies the sample containers to a California-certified laboratory. A copy is retained by BAI and placed in company files.

Sampling equipment including thermometers, pH electrodes, and conductivity probes are cleaned both before and after their use at the site. The following cleaning procedures are used:

- Scrub with a potable water and detergent solution or other solutions deemed appropriate using a hard bristle brush
- Rinse with potable water
- Double-rinse with organic-free or deionized water
- Package and seal equipment in plastic bags or other appropriate containers to prevent contact with solvents, dust, or other contaminants.

In addition, the pumps are cleaned by pumping a potable water and detergent solution and deionized water through the system. Cleaning solutions are contained on-site in clean 55-gallon drums.

### **Domestic and Irrigation Wells**

Groundwater samples collected from domestic or irrigation wells are collected from the spigot that is the closest to the well. Prior to collecting the sample, the spigot is allowed to flow for at least 5 minutes to purge the well. The sample is then collected directly into



laboratory-supplied containers, sealed, labeled, and stored on blue ice in an appropriate container, as described above. A chain-of-custody form is completed and submitted with the samples to the analytical laboratory.



UST       Yes  
 Fund Site:       No

FILE COPY

## FIELD REPORT

PAGE 1 OF 6

JOB NO: 403 PROJECT: Lander's Automotive - 3610 Gravenstein Hwy So. Sebastopol, CA

INITIAL: CDS SUBJECT: GROUNDWATER SAMPLING

Total Time: 7.25

DATE: 4-27-05 PROJECT PHASE NUMBER: 04

End. Mileage: 401

VEHICLE USED: FORD F-150

Beg. Mileage: 170365

TOTAL MILEAGE: 36

TIME	DESCRIPTION OF WORK AND CONVERSATION RECORD
0504	LOAD EQUIPMENT AND SUPPLIES.
0547	TO SITE.
0618	ARRIVE AT SITE. SET-UP FOR GROUNDWATER SAMPLING MEASURED TWO ROUNDS OF DISTANCE TO WATER AT WELLS MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 AND MW-10. WELL MW-9 WILL NO LONGER BE USED AS PER DAVE CONLEY. PERFORMED SAMPLING AT WELLS MW-1, MW-3, MW-4 AND MW-7. STORED PURGEWATER IN A DRUM LOCATED AT THE SOUTH WALL OF THE SHOP BUILDING.
	CLOSED WELLS AND MONUMENTS.
	DECON SAMPLING EQUIPMENT.
	LOAD EQUIPMENT AND SUPPLIES.
	COMPLETED FIELD NOTES AND LOGGED SAMPLES ON A CHAIN OF CUSTODY.
1106	LEAVE SITE.
1140	ARRIVE AT OFFICE. SUBMITTED SAMPLES FOR ANALYSIS.
	UNLOAD EQUIPMENT AND SUPPLIES.
1401	FINISHED WITH WORK
	DRUM COUNT: Water = 4      Devlpmt Water = Soil =      Decon Water =



## WATER LEVELS

SHEET 2 OF 6

**PROJECT:** Lander's

PROJECT NUMBER: 403.022

**INSTRUMENT TYPE:** ET (WLP)

INITIALS: CDS

DATE: 4-27-05

1, 3, 4, 7

## WELL SAMPLING

SHEET 3 OF 6

PROJECT: Lander's

PROJECT NUMBER: 403.022

WELL # MW-1 PRECIP. IN LAST 5 DAYS: ✓ WIND ✓

DATE: 4-27-05

STARTING TIME: 0755 FINISHING TIME: 0831

INITIALS: GDS

## CALCULATION OF PURGE VOLUME

2" WELL DEPTH: 15.00 - D.T.W. 0.46 = H2O COLUMN: 14.54 X 0.5 = 7.27

G  
A  
L  
L  
O  
N  
S

4" WELL DEPTH: [ ] - D.T.W. [ ] = H2O COLUMN: [ ] X 2.0 = [ ]

THEREFORE TOTAL PURGE GALLONS EQUALS

7

## FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
0803	1	5.54	258	15.8	TURBID LIGHT BROWN, NO ODOUR, SANDY
0808	4	5.68	276	16.3	TURBID LIGHT BROWN, NO ODOUR, SANDY
0812	7	5.96	340	16.4	TURBID LIGHT BROWN, NO ODOUR, SANDY

SAMPLING: SAMPLE ANALYSIS: TPH-G [ ] EPA-8260 [ ]

SAMPLE TIME: 0821 DID WELL GO DRY? No

WATER LEVELS:		NOTES:
TIME	D.T.W.	
0826	9.70	

## WELL SAMPLING

SHEET 4 OF 6

PROJECT: Lander's

PROJECT NUMBER: 403.022

WELL# MW-3 PRECIP. IN LAST 5 DAYS: ✓ WIND ✓ DATE: 4-27-85

STARTING TIME: 0832 FINISHING TIME: 0924 INITIALS: GDS

## CALCULATION OF PURGE VOLUME

2" WELL DEPTH: 13.00 - D.T.W. 0.47 = H2O COLUMN: 12.53 X 0.5 = 6.27

G  
A  
L  
L  
O  
N  
S

4" WELL DEPTH: [ ] - D.T.W. [ ] = H2O COLUMN: [ ] X 2.0 = [ ]

THEREFORE TOTAL PURGE GALLONS EQUALS

[ ] 6 [ ]

## FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
0856	1	5.61	255	17.3	CLOUDY LIGHT BROWN, NO ODOR, SANDY
0902	3	5.57	247	17.4	CLOUDY LIGHT BROWN, NO ODOR, SANDY
0907	6	5.47	243	17.7	TURBIDITY BROWN, NO ODOR, SANDY

SAMPLING: SAMPLE ANALYSIS: TPH-G [ ] EPA-8260 [ ]

SAMPLE TIME: 0914 DID WELL GO DRY? No

WATER LEVELS:		NOTES:
TIME	D.T.W.	
0919	2.79	

## WELL SAMPLING

SHEET 5 OF 6

PROJECT: Lander's

PROJECT NUMBER: 403.022

WELL # MW-4 PRECIP. IN LAST 5 DAYS: ✓ WIND ✓

DATE: 4-27-05

STARTING TIME: 0722 FINISHING TIME: 0754

INITIALS: LPS

CALCULATION OF PURGE VOLUME2" WELL DEPTH:  - D.T.W.  = H2O COLUMN:  X 0.5 = G  
A  
L  
L  
O  
N  
S4" WELL DEPTH:  - D.T.W.  = H2O COLUMN:  X 2.0 = 

THEREFORE TOTAL PURGE GALLONS EQUALS

FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
0730	1	5.71	406	15.2	CLEAR, NO ODOR
0733	3	5.78	377	15.4	TURBID LIGHT Brown, NO ODOR, SANDY
0738	6	5.83	374	15.6	TURBID LIGHT Brown, NO ODOR, SANDY

SAMPLING: SAMPLE ANALYSIS: TPH-G  EPA-8260 SAMPLE TIME:  DID WELL GO DRY? 

WATER LEVELS:		NOTES:
TIME	D.T.W.	
0746	1.09	SLOW RECOVERY

## WELL SAMPLING

SHEET 6 OF 6

PROJECT: Lander's

PROJECT NUMBER: 403.022

WELL# MW-7 PRECIP. IN LAST 5 DAYS: ✓ WIND ✓ DATE: 4-27-05

STARTING TIME: 0925 FINISHING TIME: 1022 INITIALS: CDG

CALCULATION OF PURGE VOLUME2" WELL DEPTH:  - D.T.W.  = H<sub>2</sub>O COLUMN:  X 0.5 = 

GALLONS

4" WELL DEPTH:  - D.T.W.  = H<sub>2</sub>O COLUMN:  X 2.0 = THEREFORE TOTAL PURGE GALLONS EQUALS FIELD MEASUREMENTS

TIME	GALLONS REMOVED	pH	CONDUCTIVITY	TEMP.	OBSERVATIONS
0936	1	6.36	502	18.1	Cloudy Brown, PHC Odor, SAND
0940	3	6.37	486	18.1	Cloudy Brown, PHC Odor, SAND
0944	5	6.37	478	18.0	Cloudy Brown, PHC Odor, SAND

SAMPLING: SAMPLE ANALYSIS: TPH-G SAMPLE TIME:  DID WELL GO DRY? 

WATER LEVELS:		NOTES:
TIME	D.T.W.	
1000	5.25	

**APPENDIX C**  
**Analytical Laboratory Report**



# Laboratory Report Project Overview

EDF 1.2a

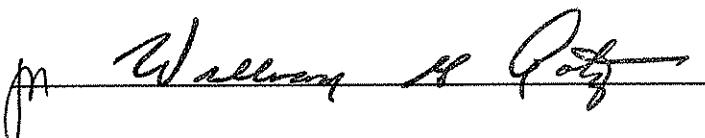
Laboratory: Bace Analytical, Windsor, CA  
Lab Report Number: 4554  
Project Name: 3610 GRAVENSTEIN HWY. S.  
Work Order Number: 403  
Control Sheet Number: NA

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anicode	Exmcode	Logdate	Extdate	Anadate	Lablotctf	Run Sub
4554	MW-1	4554-1	W	CS	8260FAB	SW5030B	04/27/200	04/28/200	04/28/200	20050428	16
4554	MW-1	4554-1	W	CS	8260TPH	SW5030B	04/27/200	04/28/200	04/28/200	20050428	16
4554	MW-3	4554-2	W	CS	8260FAB	SW5030B	04/27/200	04/28/200	04/28/200	20050428	21
4554	MW-3	4554-2	W	CS	8260TPH	SW5030B	04/27/200	04/28/200	04/28/200	20050428	21
4554	MW-4	4554-3	W	CS	8260FAB	SW5030B	04/27/200	04/28/200	04/28/200	20050428	22
4554	MW-4	4554-3	W	CS	8260TPH	SW5030B	04/27/200	04/28/200	04/28/200	20050428	22
4554	MW-7	4554-4	W	CS	8260FAB	SW5030B	04/27/200	04/28/200	04/28/200	20050428	23
4554	MW-7	4554-4	W	CS	8260TPH	SW5030B	04/27/200	04/28/200	04/28/200	20050428	23
4554	MW-7	4554-4	W	CS	8260FAB	SW5030B	04/27/200	04/28/200	04/28/200	20050428	23
4554MB	LB1	4554MB	W	LB1	8260FAB	SW5030B	/ /	04/28/200	04/28/200	20050428	3
4554MB	LB1	4554MB	W	LB1	8260TPH	SW5030B	/ /	04/28/200	04/28/200	20050428	3
4554MS	MS1	4554MS	W	MS1	8260FAB	SW5030B	/ /	04/28/200	04/28/200	20050428	17
4554MS	MS1	4554MS	W	MS1	8260TPH	SW5030B	/ /	04/28/200	04/28/200	20050428	19
4554SD	SD1	4554SD	W	SD1	8260FAB	SW5030B	/ /	04/28/200	04/28/200	20050428	18
4554SD	SD1	4554SD	W	SD1	8260TPH	SW5030B	/ /	04/28/200	04/28/200	20050428	20

Project Name:	3610 GRAVENSTEIN	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	403	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	MW-1	Lab Samp ID:	4554-1			
Descr/Location:	MW-1	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0821	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.30	1.0	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.26	1.0	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.37	1.0	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	2.4	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.30	0.50	PQL	ND	UG/L	1
1,2-Dibromoethane	0.30	0.50	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	0.59	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		86-115	SLSA	99%		1
Toluene-d8		88-110	SLSA	99%		1
Dibromofluoromethane		86-118	SLSA	97%		1

Approved by:



Date: 4/29/05

Project Name:	3610 GRAVENSTEIN	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	403	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	MW-3	Lab Samp ID:	4554-2			
Descr/Location:	MW-3	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0914	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.30	1.0	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.26	1.0	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.37	1.0	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	2.4	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.30	0.50	PQL	ND	UG/L	1
1,2-Dibromoethane	0.30	0.50	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	1.06	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
<b>SURROGATE AND INTERNAL STANDARD RECOVERIES:</b>						
4-Bromofluorobenzene	86-115	SLSA		100%		1
Toluene-d8	88-110	SLSA		99%		1
Dibromofluoromethane	86-118	SLSA		97%		1

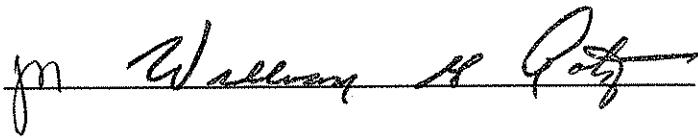
Approved by:



Date: 4/29/05

Project Name:	3610 GRAVENSTEIN	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	403	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	MW-4	Lab Samp ID:	4554-3			
Descr/Location:	MW-4	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0741	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.30	1.0	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.26	1.0	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.37	1.0	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	2.4	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.30	0.50	PQL	ND	UG/L	1
1,2-Dibromoethane	0.30	0.50	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	ND	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
<b>SURROGATE AND INTERNAL STANDARD RECOVERIES:</b>						
4-Bromofluorobenzene		86-115	SLSA	100%		1
Toluene-d8		88-110	SLSA	100%		1
Dibromofluoromethane		86-118	SLSA	97%		1

Approved by:



Date: 4/29/05

Project Name:	3610 GRAVENSTEIN	Analysis:	VOCs by GC/MS Fuel Additives Plus BTEX			
Project No:	403	Method:	8260FAB			
		Prep Meth:	SW5030B			
Field ID:	MW-7	Lab Samp ID:	4554-4			
Descr/Location:	MW-7	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	1953	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	1.9	5.0	PQL	ND	UG/L	5
Ethyl tert-butyl ether (ETBE)	1.5	5.0	PQL	ND	UG/L	5
tert-Amyl methyl ether (TAME)	1.3	5.0	PQL	ND	UG/L	5
Di-isopropyl ether (DIPE)	1.9	5.0	PQL	ND	UG/L	5
tert-Butyl alcohol (TBA)	12.	50.	PQL	ND	UG/L	5
1,2-Dichloroethane	1.5	2.5	PQL	ND	UG/L	5
1,2-Dibromoethane	1.5	2.5	PQL	ND	UG/L	5
Benzene	1.4	2.5	PQL	ND	UG/L	5
Toluene	1.3	2.5	PQL	ND	UG/L	5
Ethylbenzene	1.3	2.5	PQL	74.4	UG/L	5
Xylenes	1.3	2.5	PQL	49.7	UG/L	5
<b>SURROGATE AND INTERNAL STANDARD RECOVERIES:</b>						
4-Bromofluorobenzene	86-115	SLSA		100%		1
Toluene-d8	88-110	SLSA		100%		1
Dibromofluoromethane	86-118	SLSA		96%		1

Approved by:

*m Wallen & Potz*

Date: 4/29/05

## Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

Page: 5

Project Name:	3610 GRAVENSTEIN	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	403	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	MW-1	Lab Samp ID:	4554-1			
Descr/Location:	MW-1	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0821	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-115	SLSA		99%		1

Approved by: JM Wallen & Pety Date: 4/29/05

## Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

Page: 6

Project Name:	3610 GRAVENSTEIN	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	403	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	MW-3	Lab Samp ID:	4554-2			
Descr/Location:	MW-3	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0914	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1
<b>SURROGATE AND INTERNAL STANDARD RECOVERIES:</b>						
4-Bromofluorobenzene	86-115	SLSA		100%		1

Approved by:

*[Signature]* Date: 4/29/05

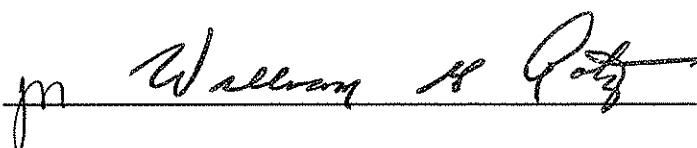
## Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

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Project Name:	3610 GRAVENSTEIN	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	403	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	MW-4	Lab Samp ID:	4554-3			
Descr/Location:	MW-4	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	0741	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-115	SLSA		100%		1

Approved by:



Date: 4/29/05

## Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

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Project Name:	3610 GRAVENSTEIN	Analysis:	Total Petroleum Hydrocarbons (TPH) by GC/MS			
Project No:	403	Method:	8260TPH			
		Prep Meth:	SW5030B			
Field ID:	MW-7	Lab Samp ID:	4554-4			
Descr/Location:	MW-7	Rec'd Date:	04/27/2005			
Sample Date:	04/27/2005	Prep Date:	04/28/2005			
Sample Time:	1953	Analysis Date:	04/28/2005			
Matrix:	Water	QC Batch:	20050428			
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics (C5-C12)	0.20	0.25	PQL	2.2	MG/L	5
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	86-115	SLSA		100%		1

Approved by: m Wallen & Peltz Date: 4/29/05

**QA/QC Report**  
**Method Blank Summary**

Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

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QC Batch:	20050428	Analysis: VOCs by GC/MS Fuel Additives Plus BTEX				
Matrix:	Water	Method: 8260FAB				
Lab Samp ID:	4554MB	Prep Meth: SW5030B				
Analysis Date:	04/28/2005	Prep Date: 04/28/2005				
Basis:	Not Filtered	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.38	1.0	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.30	1.0	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.26	1.0	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.37	1.0	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	2.4	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.30	0.50	PQL	ND	UG/L	1
1,2-Dibromoethane	0.30	0.50	PQL	ND	UG/L	1
Benzene	0.27	0.50	PQL	ND	UG/L	1
Toluene	0.25	0.50	PQL	ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL	ND	UG/L	1
Xylenes	0.25	0.50	PQL	ND	UG/L	1
<b>SURROGATE AND INTERNAL STANDARD RECOVERIES:</b>						
4-Bromofluorobenzene	86-115	SLSA		101%		1
Toluene-d8	88-110	SLSA		102%		1
Dibromofluoromethane	86-118	SLSA		102%		1

**QA/QC Report  
Method Blank Summary**

Bace Analytical, Windsor, CA

Lab Report No.: 4554 Date: 04/29/2005

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QC Batch:	20050428	Analysis:	Total Petroleum Hydrocarbons (TPH) by				
Matrix:	Water	Method:	8260TPH				
Lab Samp ID:	4554MB	Prep Meth:	SW5030B				
Analysis Date:	04/28/2005	Prep Date:	04/28/2005				
Basis:	Not Filtered	Notes:					
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil	
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL	ND	MG/L	1	
SURROGATE AND INTERNAL STANDARD RECOVERIES:				101%			1
4-Bromofluorobenzene							

**QA/QC Report**  
**Matrix Spike/Duplicate Matrix Spike Summary**

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Lab Report No.: 4554 Date: 04/29/2005

QC Batch:	20050428	Project Name: 3610 GRAVENSTEIN HWY. S.		
Matrix:	Water	Project No.: 403		
Lab Samp ID:	4554MS	Field ID: MW-1		
Basis:	Not Filtered	Lab Ref ID: 4554-1		

Analyte	Analysis Method	Spike Level MS	Sample Result	Spike Result DMS	Units	% Recoveries MS DMS	Acceptance Criteria RPD
1,2-Dibromoethane	8260FAB	10.0	10.0	ND	9.09	8.56	UG/L
Benzene	8260FAB	10.0	10.0	ND	9.52	9.08	UG/L
Di-isopropyl ether (DIPE)	8260FAB	10.6	10.6	ND	10.7	10.1	UG/L
Ethyl tert-butyl ether (ETBE)	8260FAB	10.0	10.0	ND	9.10	9.38	UG/L
Ethylbenzene	8260FAB	10.0	10.0	ND	9.44	9.50	UG/L
Methyl-tert-butyl ether (MTBE)	8260FAB	10.0	10.0	ND	9.73	9.41	UG/L
Toluene	8260FAB	10.0	10.0	ND	8.85	8.95	UG/L
Xylenes	8260FAB	10.0	10.0	ND	9.82	9.48	UG/L
tert-Amyl methyl ether (TAME)	8260FAB	30.0	30.0	ND	29.5	28.7	UG/L
tert-Butyl alcohol (TBA)	8260FAB	25.0	25.0	ND	9.08	9.20	UG/L
4-Bromofluorobenzene	8260FAB	100.	100.	99.	99.	98.	PERCENT
Dibromoformmethane	8260FAB	100.	100.	97.	97.	98.	PERCENT
Toluene-d8	8260FAB	100.	100.	99.	99.	100.	PERCENT

**QA/QC Report**  
**Matrix Spike/Duplicate Matrix Spike Summary**

Bace Analytical, Windsor, CA

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Lab Report No.: 4554 Date: 04/29/2005

QC Batch: 20050428  
Matrix: Water  
Lab Samp ID: 4554MS  
Basis: Not Filtered

Project Name: 3610 GRAVENSTEIN HWY. S.  
Project No.: 403  
Field ID: MW-3  
Lab Ref ID: 4554-2

Analyte	Analysis Method	Spike Level MS DMS	Sample Result	Spike Result MS DMS	Units	% Recoveries MS DMS RPD	Acceptance Criteria % Rec RPD
Gasoline Range Organics (C5-C12)	8260TPH	0.50	0.50	ND	0.45	0.50 MG/L	90.0 100 11 130-70 MSA 20MSP
4-Bromofluorobenzene	8260TPH	100.	100.	100.	99. PERCENT	99.0 99.0 0.00 115-86 SLSA 20SLSP	

## Chain-of Custody Form

Project #		Project Name		Analysis		C.O.C. No.	
403.010		LANDER'S AUTOMOTIVE 3610 BRAVENSTEIN HIGHWAY SOUTH SEBASTOPOL, CA				11693	
L.P. No.		Sampler's Signature				Remarks:	
		<i>Chris Scott</i>				<b>STANDARD TAT</b>	
Date Sampled	Sample I.D.	Time (24 Hour)	Sample Type	No. of Containers	TPH-GAS EPA 8260B - OXYGENATES, LEAD SCAVENGEERS & BTEX	C.O.C. No.	Remarks:
4/27/05	MW-1	✓ 0821	WATER	4	X X X X	40321-1	
	MW-3	✓ 0914		1	X X X X	-2	
	MW-4	✓ 0741		1	X X X X	-3	
	MW-7	✓ 0953		1	X X X X	-4	
Preservation: A - HCl; B - H <sub>2</sub> SO <sub>4</sub> ; C - NaOH; D - HNO <sub>3</sub> ; E - ice; F - (specify)							
Laboratory: <b>Bags</b> Relinquished by: <b>Chris Scott</b> Date/Time: <b>4/27/05 12:00</b> Received by: <b>PF, 4/27/05</b> Remarks: <b>STANDARD TAT</b> (signed) (signed) (signed) Relinquished by: <b>Chris Scott</b> Date/Time: <b>4/27/05</b> Received for Laboratory by: <b>ATTN: DAVE CONLEY</b> (signed) (signed) (signed)							